

**Amendments to the Claims:**

Claims 1 through 16 and 23 through 25 have been cancelled.

The following listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1 -16 (cancelled):

17 (previously presented): A method of demodulating a multi-level signal comprising:

- (a) identifying at least one signal constellation vector proximate to said multilevel signal;
- (b) comparing a reliability of at least two bits of said constellation vector of said demodulated multilevel signal;
- (c) assigning a hard decision value to a bit associated with a greater reliability;  
and
- (d) assigning a soft decision value to a bit associated with a lesser reliability.

18 (original). The method of claim 17 wherein said reliability is measured by a log likelihood ratio.

19 (original). The method of claim 17 wherein the step of assigning a soft decision value to said bits associated with a lesser reliability comprises the steps of:

- (a) assigning a value to said bit; and
- (b) assigning a measure of reliability to said bit.

20 (original). The method of claim 19 wherein said measure of reliability is a log likelihood ratio

21 (original). The method of claim 17 further comprising the steps of:

- (a) limiting said measure of reliability to a predetermined range; and
- (b) providing a soft decision value to bits of said demodulated multilevel signal associated a measure of reliability having values not exceeding a limiting value of said range.

22 (original). The method of claim 21 wherein said limiting value of said range equals a function of a number of bits demodulated with a soft decision.

23-25 (cancelled).